## PATENT COOPERATION TREATY



# **PCT**

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

|  | •  |                                |  |                               |
|--|--|--------------------------------|--|-------------------------------|
| INTERNATION P  | ATENT COOPER                                 |                                |  | CT/JP2003/00                  |
| aslate   | PC   | CT                             |  |                               |
| INTERNATIO   | ONAL PRELIMINA                               | ARY EXAMIN                     | ATION REPORT                                   |                               |
|  | (PCT Article 3                               | 6 and Rule 70)                 |  |                               |
| Applicant's or agent's file reference M838-PCT   | FOR FURTHER ACT                              | CION See Notifi<br>Preliminary | cation of Transmittal o                        | f Internation<br>PCT/IPEA/416 |
| International application No. PCT/JP2003/008006  | International filing date<br>24 June 2003 (2 | (day/month/year)               | Priority date (day/month/y<br>19 June 2003 (19 | rear)                         |
| International Patent Classification (IPC) or n<br>C22C 38/00, C21D 9/46                                  | ational classification and                   | IPC                            |  |                               |
| Applicant  | NIPPON STEEL C                               | ORPORATION                     |  |                               |
| 70.16 and Section 607 of the  These annexes consist of a to  3. This report contains indications related | otal of <u>11</u> sh                         | eets.                          | ·  |                               |
| I Basis of the report  II Priority   |  |                                |  |                               |
| I calc of unity of in  |  | novelty, inventive s           | tep and industrial applicabilit                | .у                            |
| ** 11  |  | regard to novelty, i           | nventive step or industrial ap                 | plicability;                  |
| VI Certain documents   | cited  |                                |  |                               |
| VII Certain defects in t   | he international applicatio                  | n                              |  |                               |
| VIII Certain observation   | ns on the international app                  | lication                       |  |                               |
|  |  |                                |  |                               |
| Date of submission of the demand   |  | Date of completion             |  |                               |
| 16 July 2003 (16.07.   | 2003)  | 31                             | March 2004 (31.03.200                          | 4)                            |
| Name and mailing address of the IPEA/JP  |  | Authorized officer             |  |                               |
| Faccimile No.  |  | Telephone No.                  |  |                               |

Form PCT/IPEA/409 (cover sheet) (July 1998)

International application No.

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT/JP2003/008006

| I. Basis | of the re  | port  |   |  |  |  |
|----------|--|---|---|--|--|--|
| 1. With  | regard to  | the elements of the international applicati   | on:*                                    |  |  |  |
|          | the inte   | mational application as originally filed  |   |  |  |  |
|          | the des  | cription:   |   |  |  |  |
| }        | pages  |   | 1,2,6-17                                |  |  |  |
| }        | pages  |   |   | , filed with the demand                      |  |  |
|          | pages  | 3,3/1,4,4/1,5,5/1   | , filed with the letter of              | 10 February 2004 (10.02.2004)                |  |  |
| [X]      | the clai   | ms·   |   | t  |  |  |
|          | pages  |   |   | , as originally filed                        |  |  |
| 1        | pages  |   | , as amended (together                  | with any statement under Article 19          |  |  |
|          | pages  |   |   | , filed with the demand                      |  |  |
|          | pages  | 1-9   | , filed with the letter of _            | 10 February 2004 (10.02.2004)                |  |  |
|          | the dra  | wings:  |   | 1  |  |  |
|          | pages  | wiiigo.   | 1/3-3/3                                 | , as originally filed                        |  |  |
| i        | pages  |   |   | , filed with the demand                      |  |  |
| 1        | pages  |   | , filed with the letter of              |  |  |  |
|          | 41.0.000.0   |   | -                                       |  |  |  |
|          | •  | nce listing part of the description:  |   | as originally filed                          |  |  |
| <u>}</u> | pages<br>pages   |   |   | , as originally filed, filed with the demand |  |  |
| 1        | pages  |   |   | , med with the domain                        |  |  |
| l the i  | With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  These elements were available or furnished to this Authority in the following language which is the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  the language of publication of the international application (under Rule 48.3(b)). |   |   |  |  |  |
| 3. With  | the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international   |   |   |  |  |  |
| prei     | preliminary examination was carried out on the basis of the sequence listing:  |   |   |  |  |  |
|          | contained in the international application in written form.  |   |   |  |  |  |
|          | filed together with the international application in computer readable form.   |   |   |  |  |  |
|          | furnished subsequently to this Authority in written form.  furnished subsequently to this Authority in computer readable form.   |   |   |  |  |  |
|          |  | tatement that the subsequently furnishe   |   | go beyond the disclosure in the              |  |  |
|          |  | ational application as filed has been furnish   |   | , go 00,000 and and and and                  |  |  |
|          |  | atement that the information recorded in urnished.  | computer readable form is identical     | to the written sequence listing has          |  |  |
| 4.       | The ar   | nendments have resulted in the cancellation   | n of:                                   |  |  |  |
| ł        |  | the description, pages  |   | ·  |  |  |
| 1        |  | the claims, Nos.  |   |  |  |  |
| }        |  | the drawings, sheets/fig  | <del></del>                             |  |  |  |
| 5.       |  | port has been established as if (some of) t<br>I the disclosure as filed, as indicated in the |   | ince they have been considered to go         |  |  |
| in t     | his repo<br>70.17).  | sheets which have been furnished to the r<br>t as "originally filed" and are not am           | nexed to this report since they do n    | ot contain amendments (Rule 10.16            |  |  |
| ** Any   | replacer   | nent sheet containing such amendments mu  | ist be referred to under item 1 and ann | exea to this report.                         |  |  |

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/08006

| V. | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; |
|----|--|
|    | citations and explanations supporting such statement   |
|    |  |

| Novelty (N)                   | Claims | 2-5, 8, 9 | YE |
|-------------------------------|--------|-----------|----|
|                               | Claims | 1, 6, 7   | NO |
| Inventive step (IS)           | Claims |           | YE |
|                               | Claims | 1-9       | NO |
| Industrial applicability (IA) | Claims | 1-9       | YE |
|                               | Claims |           | NO |

2. Citations and explanations

Document 1: JP 2000-345288 A (Nippon Steel Corp.) December 12, 2000 Document 2: JP 2001-234281 A (Nippon Steel Corp.) August 28, 2001

Claims 1, 6, and 7

Based on the description in document 1, the inventions of claims 1, 6, and 7 lack novelty.

The indicated locations in document 1 cited in the international search report describe a low silicon, high aluminum, hot-dip zinc plated steel plate wherein the "metal structure contains ferrite and martensite," and the composition thereof overlaps the scope of claim 1, including the limitations in the formula, in accordance with the selection of the TS target value, which is to be determined by persons skilled in the art based on the concrete application, etc.

Based on the description in document 1, the inventions of claims 1, 6, and 7 lack an inventive step. Persons skilled in the art can easily conceive of specifying by formulas ranges of ingredients close to those at the indicated locations in document 1 whereby similar properties can be expected.

Based on the description in document 1, the inventions of claims 2-4 lack an inventive step.

Document 1 describes the addition of the modifying additive elements listed in claims 2-4, and persons skilled in the art can easily conceive of adding those elements.

Claim 5

Based on the descriptions in documents 1 and 2, the invention of claim 5 lacks an inventive step. Document 1 does not describe the short axis/long axis ratio of the ferrite particles, but document 2 cited in the international search report concerns a galvanized steel plate wherein "the metal structure contains ferrite and martensite," i.e., it concerns an invention in the same field of technology. The indicated locations in document 2 describe restrictions on the short axis/long axis ratio of the ferrite particles, and persons skilled in the art can easily conceive of adding these restrictions to the invention described in document 1.

Claims 8 and 9

(

Based on the descriptions in documents 1 and 2, the inventions of claims 8 and 9 lack an inventive step.

Document 1 does not describe hot rolling, coiling, annealing temperature, time, and quenching rate, but document 2 cited in the international search report concerns a galvanized steel plate wherein "the metal structure contains ferrite and martensite," i.e., it concerns an invention in the same field of technology. The indicated locations in document 2 describe restrictions on hot rolling, coiling, annealing temperature, time, and quenching rate, and persons skilled in the art can easily conceive of adding these restrictions to the invention described in document 1.

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

2003.08.27

International application No.

PCT/JP03/08006

| 1. Certain published documents (Rule 70.10) |           |                                   |  |                              |   |
|---|-----------|-----------------------------------|--|------------------------------|---|
| Applicati<br>Patent                         |           | Publication date (day/month/year) |  | Filing date (day/month/year) | Priority date (valid claim)<br>(day/month/year) |
| JP 2003-1                                   | 193 192 A | 2003.07.09                        |  | 2001.12.26                   |   |
| Œ   | χı        |                                   |  |                              |   |

2002.02.14

Љ 2003-239040 A [EX]

VI. Certain documents cited

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure (day/month/year)

Date of written disclosure referring to non-written disclosure (day/month/year)